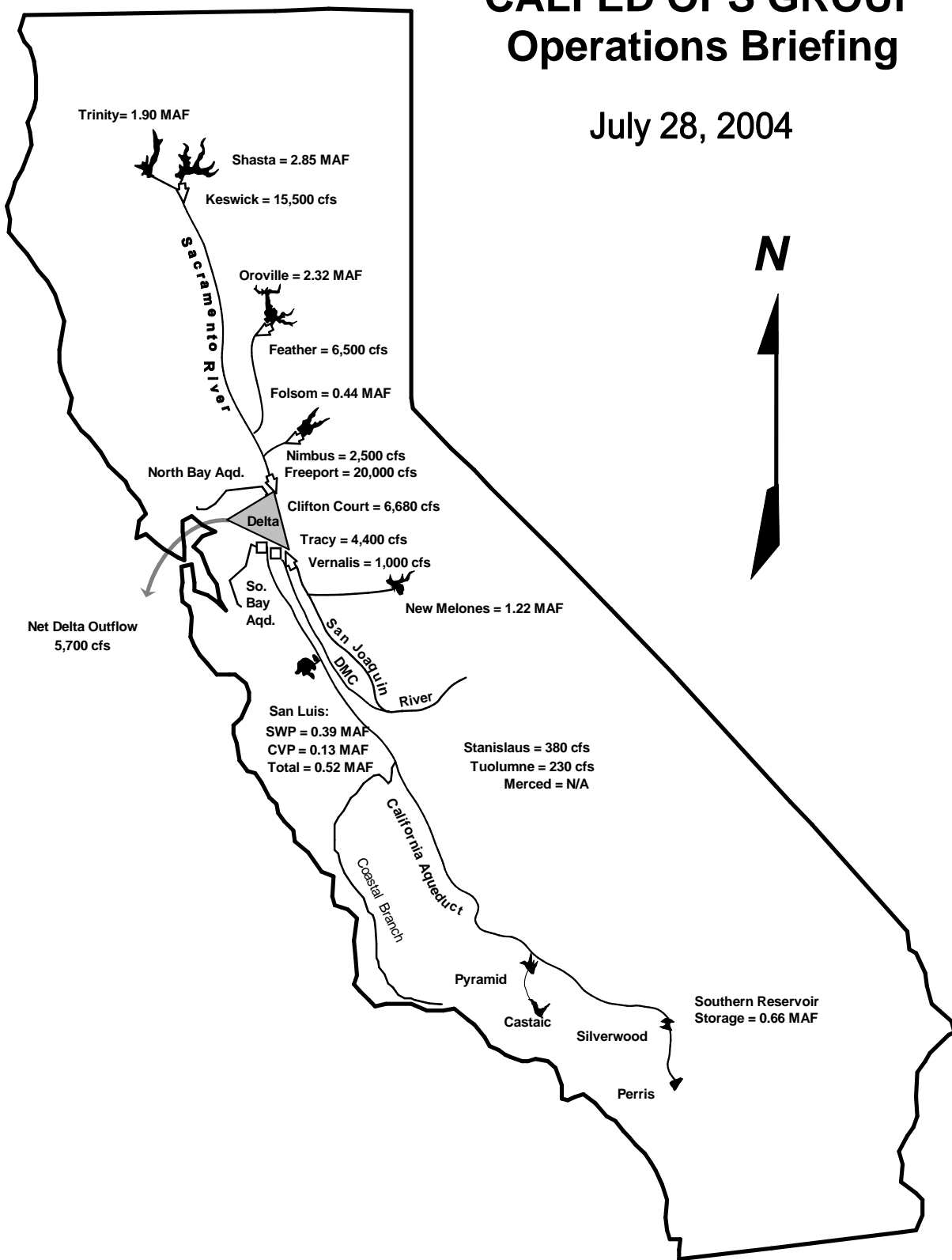


# CALFED OPS GROUP Operations Briefing

July 28, 2004



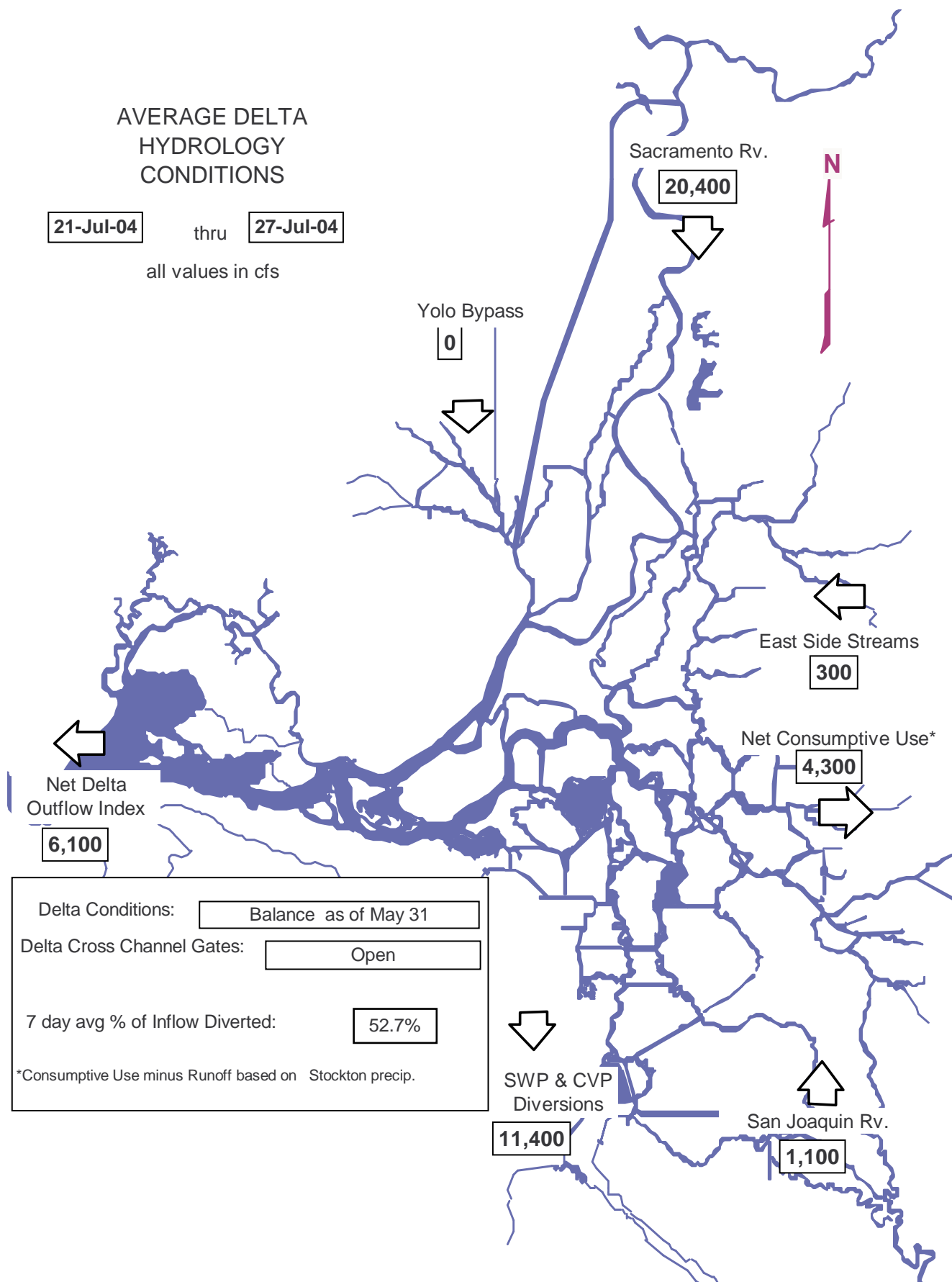
AVERAGE DELTA  
HYDROLOGY  
CONDITIONS

21-Jul-04

thru

27-Jul-04

all values in cfs



Delta Conditions:

Balance as of May 31

Delta Cross Channel Gates:

Open

7 day avg % of Inflow Diverted:

52.7%

\*Consumptive Use minus Runoff based on Stockton precip.

AVERAGE DELTA  
WATER QUALITY  
CONDITIONS

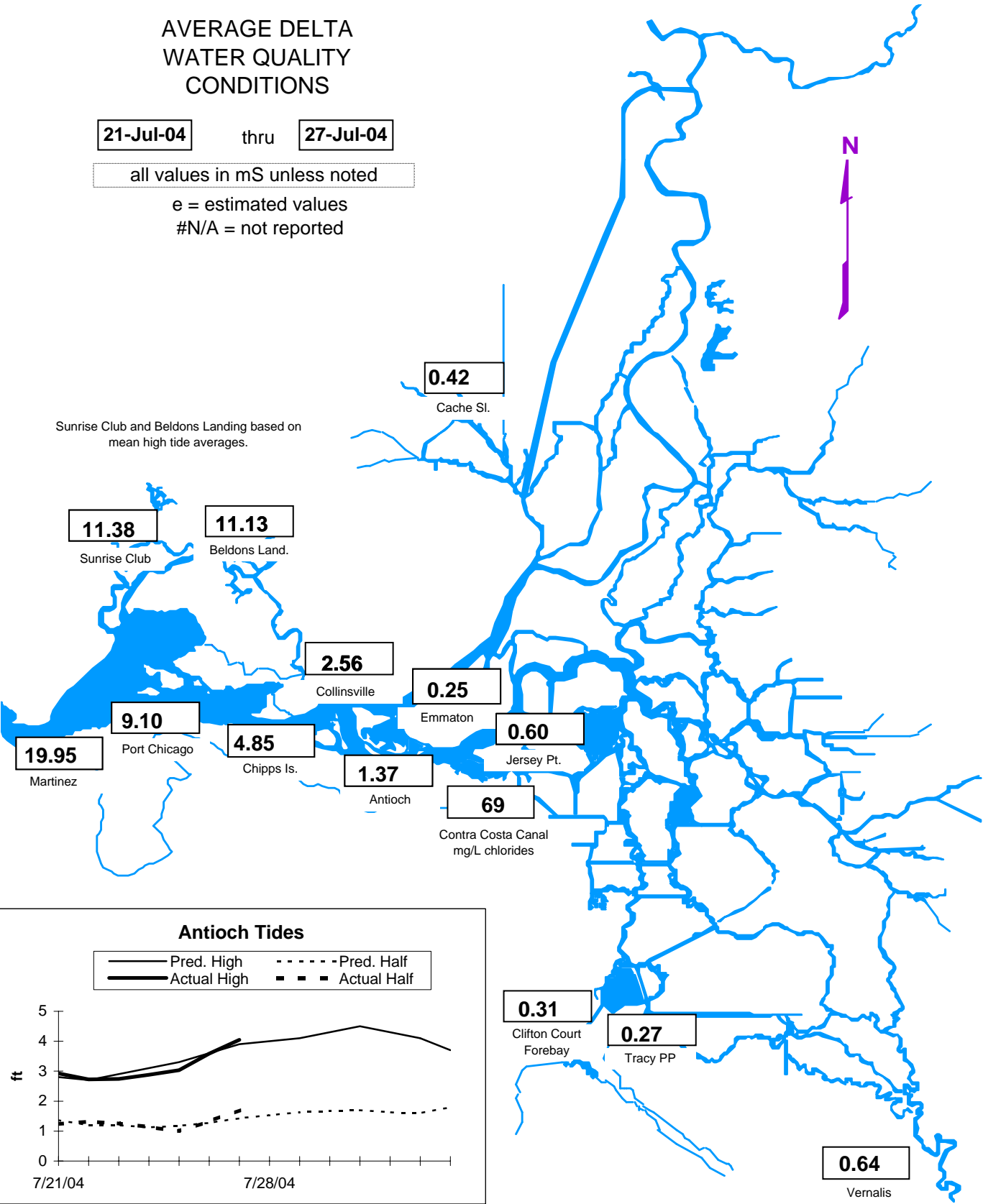
21-Jul-04 thru 27-Jul-04

all values in mS unless noted

e = estimated values

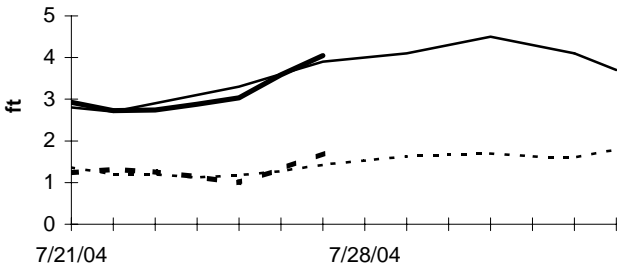
#N/A = not reported

Sunrise Club and Beldons Landing based on  
mean high tide averages.



Antioch Tides

— Pred. High    - - - - - Pred. Half  
— Actual High    - - - - - Actual Half



**DRAFT**

# Bay-Delta Standards

Contained in D-1641

**DRAFT**

CRITERIA	Jul 04	Aug 04	Sep 04
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**FLOW/OPERATIONAL**

<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>SWP/CVP Export Limits</li> <li>Export/Inflow Ratio</li> <li>Minimum Outflow - mon. - 7 day avg.</li> <li>Suisun Marsh</li> <li>Habitat Protection Outflow, X2</li> <li>River Flows:</li> <li>@ Rio Vista - min. mon. avg. - 7 day average</li> <li>@ Vernalis: Base -min. mon. avg. - 7 day average</li> <li>Delta Cross Channel Gates</li> </ul>			
	65% of Delta Inflow		
	6500 cfs	4,000 cfs	3,000 cfs
	5200 cfs	3,000 cfs	2,000 cfs
			3,000 cfs
			2,000 cfs

**WATER QUALITY STANDARDS**

<ul style="list-style-type: none"> <li>Municipal and Industrial</li> <li>All Export Locations</li> <li>Contra Costa Canal</li> </ul>			
	CI <= 250 mg/l		
<ul style="list-style-type: none"> <li>Agriculture</li> <li>Western/Interior Delta</li> <li>Southern Delta</li> </ul>	CI <= 150 mg/l for 175 days ( All Days have been met )		
	14-dm EC at Emmaton, Jersey Point: <= 1.14 mS/cm EC, <= 0.74 mS/cm		
	30-day running average EC <= 1.0 mS ( @ Vernalis <= 0.7 mS )		
<ul style="list-style-type: none"> <li>Fish and Wildlife</li> <li>San Joaquin River Salinity</li> <li>Suisun Marsh Salinity</li> </ul>			

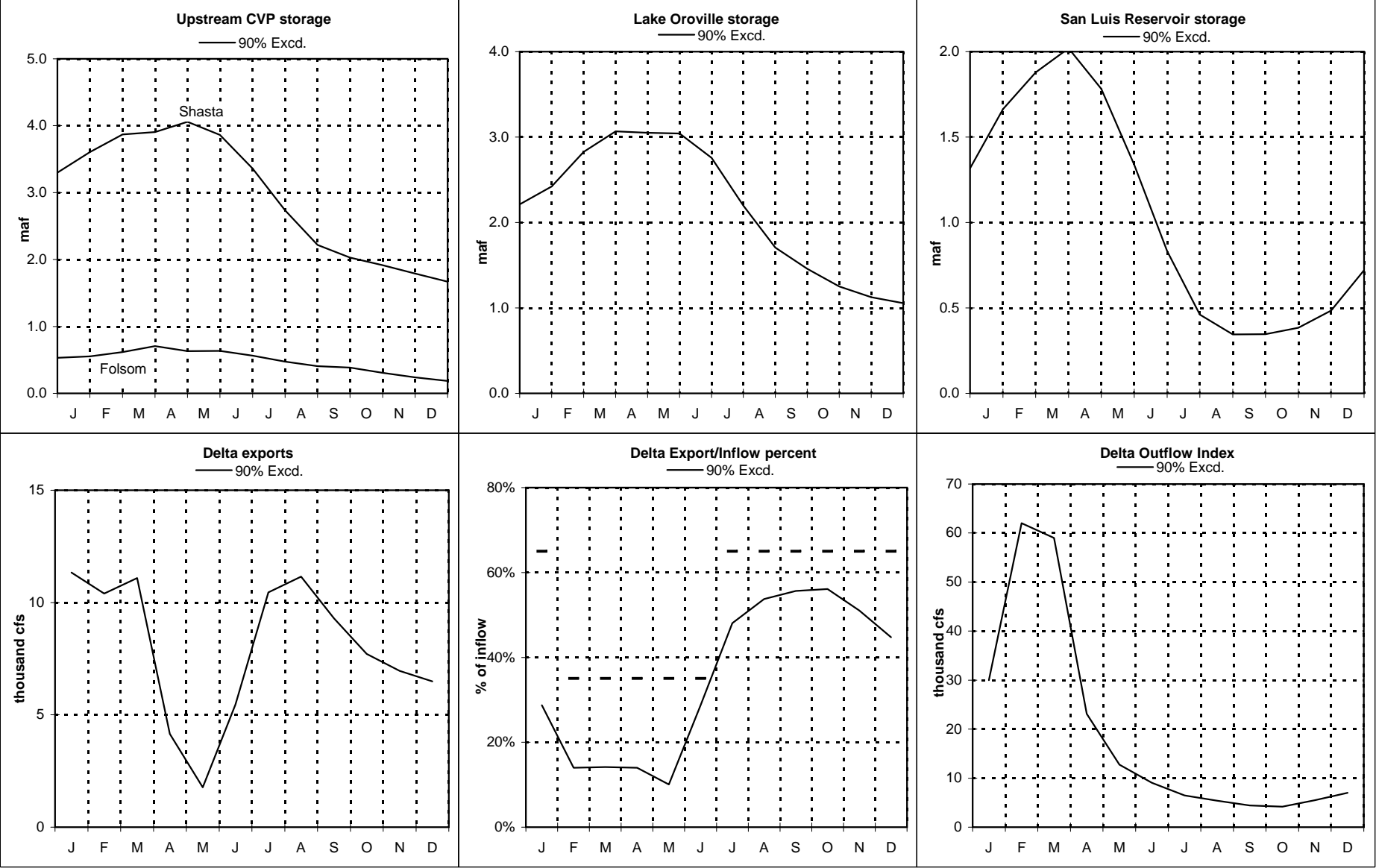
**Water Year Classification: (May 1 forecast)**

SRI (40-30-30 @ 50%) = 7.7 (BN)

SJV (60-20-20 @75%) =2.2 (Dry)

# SWP & CVP CY 2004 Forecasted Operations

(based on 7/1/04 storages and 6-1-04 water supply update)



Flows are monthly averages.

**WY 2003/2004 EWA Accounting Summary**

Based upon July Operations Study - 90% Exceedance Hydrology

**Assumptions:** SWP Allocation - 65%; NOD Purchases - 120 TAF; SOD Purchases - 35 TAF

EWA NOD and SOD Storage ((+ = Acquisitions) and (- = Releases))																	
1	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NOD (Oroville) <sup>0</sup>	0.398					-0.398 <sup>3</sup>											0
NOD (YCWA/PCWA)									101 <sup>4</sup>	20 <sup>5</sup>							120
YCWA											-39	-43	-15	-4			-101
PCWA											-6	-6	-0.4	-2	-5		-20
Carriage Water Loss <sup>2</sup>											-11	-12	-4	-2	-1		-30
SOD (KCWA/SCVWD)									35 <sup>6</sup>	-12 <sup>6</sup>	-12 <sup>6</sup>	-12 <sup>6</sup>					0
SOD (MWD)																	0

EWA Asset Acquisition in SWP San Luis																	
2	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
EWA share of SWP gain																	0
Project Pumping to reduce EWA debt																	0
JPOD using excess flows																	0
JPOD using NOD storage																	0
Xfer NOD - Sacramento River <sup>2</sup>											3 <sup>4</sup>	7 <sup>4</sup>	11 <sup>4</sup>	3 <sup>4</sup>			25
Xfer NOD - San Joaquin River <sup>2</sup>																	0
SOD SWP Surface/GW Purchases										12 <sup>6</sup>	12 <sup>6</sup>	12 <sup>6</sup>					35
Exchange of EWA assets																	0
Groundwater pumping SOD																	0
Exchange from CVP to SWP in SL																	0
<b>Total Monthly EWA Assets</b>		0	0	0	0	0	0	0	0	12	15	18	11	3	0	0	60

EWA Asset Acquisition in CVP San Luis																	
3	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
E/I Relaxation																	0
Project Pumping to reduce EWA debt							0.202										0
JPOD using excess flows																	0
JPOD using NOD storage											30 <sup>4,5</sup>	30 <sup>4,5</sup>	0.3 <sup>4,5</sup>	2 <sup>4,5</sup>	4 <sup>5</sup>		66
Xfer NOD - Sacramento River <sup>2</sup>																	0
Xfer NOD - San Joaquin River <sup>2</sup>																	0
SOD CVP Surface/GW purchases																	0
Exchange of EWA assets																	0
Groundwater pumping																	0
Exchange from SWP to CVP in SL																	0
<b>Total Monthly EWA Assets</b>	0	0	0	0	0	0	0	0	0	0	30	30	0	2	4	0	66

EWA Expenditures at the Export Pumps																	
4	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP export cuts								-6 <sup>7</sup>	-52 <sup>7</sup>								-58
CVP export cuts								-7 <sup>8</sup>	-59 <sup>8</sup>								-66
<b>Total Expenditures</b>	0	0	0	0	0	0	0	-13	-111	0	0	0	0	0	0	0	-124

EWA End-of-Month Incremental Storage Changes																	
5	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-6	-52	12	15	18	11	3	0	0	2
CVP in SL	-0.202	0.000	0.000	0.000	0.000	0.000	0.202	-7	-59	0	30	30	0	2	4	0	0
NOD Storage	0.398	0	0	0	0	-0.398	0	0	101	20	-44	-49	-15	-7	-5	0	0
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	35	-12	-12	-12	0	0	0	0	0
<b>Total Incremental Storage Changes</b>	0.253	0	0	0	0	0	0	-13	25	20	-11	-12	-4	-2	-1	0	2

EWA End-of-Month Storage Balance at Various Sites																	
6	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SWP in SL (without Source Shift)	0.057	0	0	0	0	0	0	-6	-58	-46	-31	-13	-1	2	2	2	
CVP SL	-0.202	-0.202	-0.202	-0.202	-0.202	-0.202	0	-7	-66	-66	-36	-6	-6	-4	0	0	
NOD Storage	0.398	0.398	0.398	0.398	0.398	0.000	0	0	101	120	76	27	12	5	0	0	
SOD Storage (non-S.L.)	0.000	0	0	0	0	0	0	0	35	23	12	0	0	0	0	0	
<b>EWA Asset Balance</b>	0.253	0	0	0	0	0	0	-13	12	32	21	9	5	3	2	2	

San Luis Reservoir Storage Conditions																	
7	C/O	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Storage (base case) <sup>9</sup>		650	788	1010	1665	1879	2020	1781	1337	832	461	345	346	384	485	720	
Encroachment																	
Total Storage (EWA case)		650	788	1010	1664	1878	2020	1768	1214	720	394	327	339	382	487	722	
MWD Source Shifting																	
<b>Storage (with MWD source shifting)</b>		650	788	1010	1664	1878	2020	1768	1214	720	394	327	339	382	487	722	

<sup>0</sup> 2004 NOD Purchases = 65(YCWA) + 20(PCWA). YCWA has firm 65 taf; exercised options for an additional 35 taf.

<sup>1</sup> Aqueduct conveyance and evaporation losses are not included.

<sup>2</sup> Carriage water loss applies to water transfers from the Sacramento River (assumed to be 25% (due to the levee failure) until modeling results indicate otherwise);

a 10% conveyance loss applies to water transfers from the San Joaquin River. Carriage water loss in WY 2003 was 0%.

<sup>3</sup> The SWP spilled ~ 400 af of EWA water stored in Oroville during flood control operations.

<sup>4</sup> 2004 YCWA Transfer (Joint place of use) <sup>5</sup> 2004 PCWA Transfer (Joint place of use)

<sup>6</sup> 2004 SOD Transfers - 35 TAF from KCWA (SWP place of use)

<sup>7</sup> The SWP costs for VAMP and post-VAMP shoulder are about 2.6 TAF (for 4/15-4/30 = -5.7 TAF; 5/1-5/15 = +3.0 TAF) (cumulatively) and 55 TAF, respectively.

<sup>8</sup> The CVP costs for VAMP and post-VAMP shoulder are about 17 TAF and 49 TAF, respectively.

<sup>9</sup> Based upon DWR's 90% (90% Fall) allocation study (dated 7/2004).